

RAW SEQUENCE LISTING

DATE: 10/18/2001

PATENT APPLICATION: US/09/750,456

TIME: 09:18:58

Input Set : A:\lex286usa SEQLIST.TXT

Output Set: N:\CRF3\10182001\I750456.raw

ENTERED

4 <110> APPLICANT: Friedrich, Glenn
5 Zambrowicz, Brian
6 Sands, Arthur T.
8 <120> TITLE OF INVENTION: Novel Mutated Mammalian Cells and Animals
10 <130> FILE REFERENCE: LEX-0286-USA
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/750,456
C--> 12 <141> CURRENT FILING DATE: 2000-11-30
12 <150> PRIOR APPLICATION NUMBER: US 09/728,445
13 <151> PRIOR FILING DATE: 2000-11-30
15 <150> PRIOR APPLICATION NUMBER: US 60/168,358
16 <151> PRIOR FILING DATE: 1999-12-01
18 <160> NUMBER OF SEQ ID NOS: 891
20 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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23 <211> LENGTH: 449
24 <212> TYPE: DNA
25 <213> ORGANISM: Mus musculus
27 <220> FEATURE:
28 <221> NAME/KEY: misc_feature
29 <222> LOCATION: (1)...(449)
30 <223> OTHER INFORMATION: n = A,T,C or G
32 <400> SEQUENCE: 1
W--> 33 aggccttgaa gagatccgca aatgtggant gaaaaacttc cgnaacatcc aggntgatga 60
34 gqctaatttta ttgacttggc aagggttat tgttctgac aacctccat atgataagg 120
35 agccttcaga attgaaatca actttccagc agagtatcca ttcaaaccac ccaagatcac 180
36 attttaaaca aagatctacc accctaacat cgatgagaag gggcaggtct gtctgccagt 240
37 cattagtgtc gaaaactgga agccagccac caagactgac caagtaatcc agtccctcat 300
38 agcactggtg aatgaccccc agcctgagca cccactccgg gctgacctag ctgaagaata 360
39 ctctaaggac cgtaaaaaat tctgtaagaa tgctgaagag ttacaaaaga aatatgggga 420
40 aaaagccgac ctgggggctt aaaatctgc 449
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 397
44 <212> TYPE: DNA
45 <213> ORGANISM: Mus musculus
47 <220> FEATURE:
48 <221> NAME/KEY: misc_feature
49 <222> LOCATION: (1)...(397)
50 <223> OTHER INFORMATION: n = A,T,C or G
52 <400> SEQUENCE: 2
W--> 53 atttgccagc tgaaggcatt tacattcgga gttccgcgga ctcttcanag gctgtaaaaa 60
W--> 54 tgccggagtc acnaaagcct gcaaaaagct gttgcttgcc ttgctgctgc tgctgctact 120
55 gccgtccctg cccgtgctgc aagctgtac tectgtgct gctgctgctg ctgttgctg 180
56 attgttgctg ttgctgggtg ctgtttactg tttgctgccc gctggattgc tggattgctg 240
W--> 57 attgccagtc gggnaaatcc tggnnataaa aatccanctt gcccanaaaa acangacnac 300
W--> 58 cctnnaggaa gtattctaat gatttcaatn cgccctttcc ccctctnacc tttctctctt 360
59 accttatgct gggggatttg aagggtggca aaaaaaa 397
61 <210> SEQ ID NO: 3

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62 <211> LENGTH: 285
63 <212> TYPE: DNA
64 <213> ORGANISM: Mus musculus
66 <220> FEATURE:
67 <221> NAME/KEY: misc_feature
68 <222> LOCATION: (1)...(285)
69 <223> OTHER INFORMATION: n = A,T,C or G
71 <400> SEQUENCE: 3
W--> 72 gatggagaaa ctgagggtcc gcatngaanc aggetgattc agacctcgct gccactgagt      60
73 atgagaccac ctgggggtgaa acttagatgg ctctattgtt ctgtcacctg ccgccactcc      120
74 tctccaagac actgtttacct gcccttgaga tattccggag acagcatccc gcagatcacc      180
75 tacaggettg cgacaggcac caagaatgga ttggtggggg atgggcctcc cctctttata      240
76 cgcacagagt cttagtaaatt tttgggtcct tgaacagaaa aaaaaa      285
78 <210> SEQ ID NO: 4
79 <211> LENGTH: 287
80 <212> TYPE: DNA
81 <213> ORGANISM: Mus musculus
83 <220> FEATURE:
84 <221> NAME/KEY: misc_feature
85 <222> LOCATION: (1)...(287)
86 <223> OTHER INFORMATION: n = A,T,C or G
88 <400> SEQUENCE: 4
W--> 89 caggagtaac aagtgtggag gtcnaaggan aactcttggg atctcttcta tcctatcaca      60
W--> 90 tcngtctcag gcatcnaaca tgggccaaact cctcaaactt ggtancctgg nacttnaata      120
W--> 91 nccatcttan tgctcaaaaa aggtttctcc tatgaagacc gtgtntcctg gctgtcctag      180
W--> 92 aatttgetgt gcnnaccaac ctggcctnna actcataaac ntttacctgc ctctgcctct      240
W--> 93 aaagtgttgg gattnaaagc atttcccact atgtaacaaa caaaaaa      287
95 <210> SEQ ID NO: 5
96 <211> LENGTH: 417
97 <212> TYPE: DNA
98 <213> ORGANISM: Mus musculus
100 <220> FEATURE:
101 <221> NAME/KEY: misc_feature
102 <222> LOCATION: (1)...(417)
103 <223> OTHER INFORMATION: n = A,T,C or G
105 <400> SEQUENCE: 5
W--> 106 cgcccatcct aaattcctag ctgtctcggg gtaggagntt cctgttcatt cgttctgata      60
W--> 107 nccccactgn tgaaaactga ggngccacac tcgtatcnct ntcnacngga cctaacatta      120
W--> 108 ttcgggaggg aactctgggc cncnccecca tcnttcaatn nnnntgtcgt ggngattggn      180
W--> 109 ttngaacent gntcagnata aagctgaaaa aaaccccatg gnetnncatt tncaccanga      240
W--> 110 ccgggaagng tntnatatcn aggatccgaa taaggctctt caaggettct ttgaccgaga      300
W--> 111 aggagaaanag ttagaatatg aatttgatga gcnaggacac atcacttggc tctgcagggt      360
W--> 112 gaggttacct gtagatgatt cnnctgggaa acagctgggt gctgaggcca ttcactc      417
114 <210> SEQ ID NO: 6
115 <211> LENGTH: 173
116 <212> TYPE: DNA
117 <213> ORGANISM: Mus musculus
119 <400> SEQUENCE: 6
120 gtctagaatg tatgtgccat gctgggaaca ggccctggatc gtctgcaaga gcagccatcg      60

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121 gtcttagctg ctaactcttc tctcagtcga ttttgaatac gattctgagg tgacgcttcc 120
122 ctgtcaccac ccttaacatg ctctcatcgt accctctggt caaataaaaa aaa 173
124 <210> SEQ ID NO: 7
125 <211> LENGTH: 167
126 <212> TYPE: DNA
127 <213> ORGANISM: Mus musculus
129 <220> FEATURE:
130 <221> NAME/KEY: misc_feature
131 <222> LOCATION: (1)...(167)
132 <223> OTHER INFORMATION: n = A,T,C or G
134 <400> SEQUENCE: 7
W--> 135 tctagatgta tgtgccatgc tgggaaccan gcctggatcg tctgcaagag cagncatcgg 60
W--> 136 tcttagntgc taactcctct ctcagtcgat ttgaatacna ttctgaggtg acgcttcctt 120
W--> 137 gtcgncaccc ttaacatgct ctcatcgtac cctctgaaaa aaaaaaa 167
139 <210> SEQ ID NO: 8
140 <211> LENGTH: 191
141 <212> TYPE: DNA
142 <213> ORGANISM: Mus musculus
144 <220> FEATURE:
145 <221> NAME/KEY: misc_feature
146 <222> LOCATION: (1)...(191)
147 <223> OTHER INFORMATION: n = A,T,C or G
149 <400> SEQUENCE: 8
W--> 150 attctccatc cacaattat gcagtcaagt ttcctcnaat ttgggggtcaa tacacacaga 60
151 gtqcaatgga tgaacctcgc tctggagaaa tcacctgcat aatcatggta tttccccttc 120
W--> 152 caggatttat acanaagcag tcttccaaat tctgaaacct gatgccatc acatactttg 180
153 gqctgagaaa a 191
155 <210> SEQ ID NO: 9
156 <211> LENGTH: 157
157 <212> TYPE: DNA
158 <213> ORGANISM: Mus musculus
160 <220> FEATURE:
161 <221> NAME/KEY: misc_feature
162 <222> LOCATION: (1)...(157)
163 <223> OTHER INFORMATION: n = A,T,C or G
165 <400> SEQUENCE: 9
W--> 166 ggtctagatt atgtgcatgc tgggaacaag cctggatcgt ctgcaagagc agncatcgg 60
W--> 167 cttagctgct aactcctctc tcagtcgatn tgaaatacga ttctgaggtg acgcttcct 120
W--> 168 gtcnncaccc ttaacatgct ctcatcgtac cctctga 157
170 <210> SEQ ID NO: 10
171 <211> LENGTH: 273
172 <212> TYPE: DNA
173 <213> ORGANISM: Mus musculus
175 <220> FEATURE:
176 <221> NAME/KEY: misc_feature
177 <222> LOCATION: (1)...(273)
178 <223> OTHER INFORMATION: n = A,T,C or G
180 <400> SEQUENCE: 10
181 ggaatacaaa gggccagggt cggctgcgt ctctggatc ttgagctgac atctaggttc 60

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W--> 182 ctgggtggga ccacaaatnc aactatactg gaggetgatg canttctctt aggactccaa      120
      183 gagatcaggg actcaaaatc aagagaggag caaccagca agtaatggac tgcgttgct      180
      184 gtatttgaac ccattttgag cccagaaaac tataaataaa taaataattg aataaattta      240
W--> 185 tnataaatga aaagtaatcc tgttaaaaaa aaa      273
      187 <210> SEQ ID NO: 11
      188 <211> LENGTH: 370
      189 <212> TYPE: DNA
      190 <213> ORGANISM: Mus musculus
      192 <220> FEATURE:
      193 <221> NAME/KEY: misc_feature
      194 <222> LOCATION: (1)...(370)
      195 <223> OTHER INFORMATION: n = A,T,C or G
      197 <400> SEQUENCE: 11
      198 actqaggtga cctttgaaag ttaacagggg tgccatgggc tgagtaagat aaacggaact      60
      199 gctgttcaac cccgccaggt ctggggatga gtcattgttt tcaaatttat gaacaaagca      120
      200 cacaaattaa gaataatata agcaagaaac agcagagaga cacaaaagga catagaatcc      180
      201 ctgactctca ctgtgatctg gtaacactag ttctagggct ggagagagag atgctcaggg      240
      202 caaqtgctct tacagagaac atgagttcaa ttcccagaac ccacatggta cctcacaact      300
W--> 203 gcctattttca tacatgtggg gcagaacacc gatacacata cttttttttt taanaattga      360
      204 aaaaaaaaaa      370
      206 <210> SEQ ID NO: 12
      207 <211> LENGTH: 448
      208 <212> TYPE: DNA
      209 <213> ORGANISM: Mus musculus
      211 <220> FEATURE:
      212 <221> NAME/KEY: misc_feature
      213 <222> LOCATION: (1)...(448)
      214 <223> OTHER INFORMATION: n = A,T,C or G
      216 <400> SEQUENCE: 12
W--> 217 ctcttttagt gagacngccc taggcagacc acntacnntt acccttctga aatctcggtg      60
W--> 218 ctggaggatc tnggcnggga tcttgatacc cccattgccc ccttagcnac ccatcctgac      120
W--> 219 naggaggagg aggaggagga ggaagaggag gagttgcttc tgcngcctgg gctccagggc      180
W--> 220 gggctgcgca ccaaggccct antcgtggat gantcctgcc ggcgggtgacc atcttccant      240
      221 ttgggcgcac acctccttcc ttcttctctt cccgtacctg aagcttctgg agtctggatg      300
W--> 222 attcanagcc gacanacctg gcnnggatcc tgccctggcag ggaagggggg tgancntntt      360
W--> 223 ctgacttget ttcccaccc ctttcttggg gcnncnccnt tatectaaat ttacccttaa      420
      224 ctcatggtgt ttcccgtagg tgacctaa      448
      226 <210> SEQ ID NO: 13
      227 <211> LENGTH: 394
      228 <212> TYPE: DNA
      229 <213> ORGANISM: Mus musculus
      231 <220> FEATURE:
      232 <221> NAME/KEY: misc_feature
      233 <222> LOCATION: (1)...(394)
      234 <223> OTHER INFORMATION: n = A,T,C or G
      236 <400> SEQUENCE: 13
W--> 237 tcttgatact gcttgntngg ggtagagctn cctgctcnta cnttctgcn naccnntatgc      60
W--> 238 tggaacctga gnatchacat aattgcacct tctcttctgg accagacatt attcgggggg      120
W--> 239 aatcggtgcc ccacccctg acgtcatacc tgggtgtctca nccnnngnat ttgaactgtg      180

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Input Set : A:\lex286usa SEQLIST.TXT

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W--> 240 atcatctgag ccaaaatann ccaaagtata naagtcaaca aaggcaanat gctgnanath 240
W--> 241 aaatggaaaa ccantcattg anaacatcat cncctctntn ctccgaggac ncttcggtgc 300
W--> 242 ggatctggga tatccennan ggtgggctga aacggaacnt naccgaggga ctccctggagc 360
W--> 243 tcnatggana catgcgccat gtggggctgg tgga 394
245 <210> SEQ ID NO: 14
246 <211> LENGTH: 461
247 <212> TYPE: DNA
248 <213> ORGANISM: Mus musculus
250 <220> FEATURE:
251 <221> NAME/KEY: misc_feature
252 <222> LOCATION: (1)...(461)
253 <223> OTHER INFORMATION: n = A,T,C or G
255 <400> SEQUENCE: 14
W--> 256 cgcaccggat tgggcagcan taacnacact gcaanaggan cctnctgcac acgtttattg 60
W--> 257 gganagtntg attgnagagg tgannagacc ccgagcccaa aactgggtgt gttatatag 120
W--> 258 gcctangaga ggantgtctc acacctggat tggttatgca ctacgcctca tttgcatgat 180
W--> 259 cctcatctga ttggctactc tctctctgta cctcacaag cctcattntc atacctcatt 240
W--> 260 tgcattgtctc acacctgatt gggttatantc tccaaacccc ctttatcctg cccggggcnn 300
W--> 261 gcantgtctt tgcaaaaaaac tttactgcat atgttcacat tggttgtttg tccaaactta 360
W--> 262 tgcgtggtgg ccancagtan tcagtgccac tetgcaacgg cacntgtggc ttcccacatc 420
263 tccccctttt tgttttaata aaatgaggct gggactaggc c 461
265 <210> SEQ ID NO: 15
266 <211> LENGTH: 301
267 <212> TYPE: DNA
268 <213> ORGANISM: Mus musculus
270 <400> SEQUENCE: 15
271 aagtgttccc taagaaggtt gtcacctga cggaagaacg gaaagcccaa cagctccagc 60
272 gcttcttggg catgaagagc aaccccatatc agggcctggc tgcccactgg gattatgaaa 120
273 agaaggagtg gaaaaagtga ccaacgtccc acgtctgccg ccagcccctg caaactgctt 180
274 ctgcagccca ggagacaatc atccccctccc ctccccctccc ctccctcctc ctctgagtc 240
275 ctgtctccac tcccttctcc aataaaaagca gcctgctttg ttctgcttgc aaaaaaaaaa 300
276 a 301
278 <210> SEQ ID NO: 16
279 <211> LENGTH: 285
280 <212> TYPE: DNA
281 <213> ORGANISM: Mus musculus
283 <220> FEATURE:
284 <221> NAME/KEY: misc_feature
285 <222> LOCATION: (1)...(285)
286 <223> OTHER INFORMATION: n = A,T,C or G
288 <400> SEQUENCE: 16
W--> 289 aggttccctaa aatcanactc tgtcatcggn aagtgnagac tgtaacaaac tgggaccctc 60
W--> 290 acatgccnat aagcantcaa aaatatttnc tgggagctgg ananatgggc tcagcagtta 120
W--> 291 aaaacactga ctgctcttcc ggangtctcg tgttcaaac ccagcaacca cagggttaact 180
W--> 292 cacaaccatc tgtaatgana tctgatgccc tcttcgggtg tgtctnaaaa cagctacagt 240
293 gtccttacat ataataaata aataaatctt tttttttaa gaata 285
295 <210> SEQ ID NO: 17
296 <211> LENGTH: 100
297 <212> TYPE: DNA

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/750,456

DATE: 10/18/2001

TIME: 09:18:59

Input Set : A:\lex286usa SEQLIST.TXT

Output Set: N:\CRF3\10182001\I750456.raw

L:12 M:270 C: Current Application Number differs, Replaced Current Application No
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:33 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:53 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:58 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:72 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:90 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:137 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:150 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:219 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:223 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
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L:239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:240 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:241 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:256 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14

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L:260 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14

L:261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14

L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14

L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16